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• EDITORIAL •

The War and Man Power

Since our last Editorial on this subject we have received numerous letters and telephone calls mostly congratulatory we are happy to say, and also since that time we have received further evidence of the manner in which men badly needed in the war effort, are being called up for service in the Army and further evidence of many square pegs in round holes. It would seem to this writer that there is something wrong somewhere when men in more or less key positions in industry and who cannot be replaced have exemption refused and are thrown into the Army where, in many cases, they are of far less value to the country than if they had been left where they were. Naturally most of such cases as come to our attention are Accountants and Payroll men and the like. Some production men are being granted exemption, but is Production the only thing that matters? We mean by that, can production be carried on only by the men who fabricate material? We think not. It is all very well to say that Accountants who have been and are being called are young men and therefore have not a great deal of experience and can be replaced. Replaced by whom? The Accounting profession is not one which can be learned in five minutes and even if the men were available to replace those called for service, present sadly depleted staffs are far behind in their work and cannot afford the time to teach newcomers. The new budget proposals impose an added strain on Accounting staffs but there appears to be a complete disregard at Ottawa and elsewhere to realize the fact.

The National Association of Cost Accountants recently contacted the National Selective Service System and eventually secured definite assurance from that body that men in essential accounting positions would receive deferment from Army service. Each case will be decided on its merits, and this is not a general deferment for all Accountants. But, and bear this in mind, the U.S. did this only six months after that country entered the war. We have been in it three years but still we drag Accountants into the Army without regard to their value in essential industry. The answer is, of course, selective service, and the sooner we have it the better. Britain had to release many members of different trades and professions from the Armed Services to their former occupations and we will yet have to do the same thing. This is not a general plea for the exemption of accountants from service. A great many of them are already in, a great many are being called in. Accountants, as a body, are as patriotic as the next profession, they have proved that; it is simply a plea for essential industry to be allowed to carry on without the necessity of having its accountants forced to do at least more than two men's work.

Man Power

Just as we make this issue ready for the press Mr. King has outlined the Man Power proposals. They are, as yet, somewhat vague, but so far as one is able to understand them, we are at long last to have something akin to selective service, a fact which is all to the good. Bearing in mind however the vast number of mistakes made by government agencies and boards in the past it is probably too much to hope that this selective service idea will be run without a whole lot of confusion and probably much more hardship in some cases than is really necessary. Right now there are businesses which are classed as non-essential and yet are absolutely essential. We do not know if there will be any appeal allowed from a decision classifying a business as non-essential but we sincerely hope so, otherwise there will be confusion aplenty before long. As we see it the new proposals mean two things, they mean first that we are putting all our available man and woman power into the war effort and we are definitely cracking down on non-essential goods which will mean a definite saving in purchasing power for such non-essential goods. This, however, is an extremely big undertaking and it is to be sincerely hoped that industries are not closed down and men and women thrown out of work until they can be absorbed immediately into war work. Frankly we are afraid of this because we have seen numerous cases of absolute inefficiency and disregard for plain common sense in some of these government boards. However the big weakness in the proposals so far as they have been advanced seems to be the fact that while going to a compulsory system of taking over our man power so far as industry is concerned, we still cling to the worn out, so-called voluntary system of enlistments for active service. Moreover we have no guarantee that men who are vitally needed in industry and the war effort at home, will be exempt from military service. True, they may still be deferred from military service but that does not prevent such men from enlisting and once a man is called, even if he is deferred for six months or longer, the fact unsettles him and his usefulness in the home war effort is vastly decreased. To our way of thinking the Director of Man-Power should be granted the authority to exempt from military service, men who are vitally needed here, not for six months, but just for so long as he is more use at home. Moreover, we believe that this same director should have power to conscript men for either active service or for work in the war effort at home. Let's be done with all this shilly shallying regarding active service and let us be sure that the men charged with the responsibility of deciding whether or not a man is needed more at home than in the armed forces, are men who know what they are doing, men with executive ability and possessed of keen analytical minds. Such men can still be obtained, even if they have to be drafted from their present positions, but, first of all, if we have accepted the principle of conscription of man-power let us have it, not alone for the war effort at home but for overseas service and let us have a real selective service and fewer square pegs in round holes.

Across the Secretary's Desk

Here we are again almost at the commencement of another season and one that promises to be one of the most momentous in the history of the Society. The Society has a tremendous part to play in the war effort and it is up to every member to put forth an extra effort not only to assist in strengthening the membership but to do his or her part in whatever manner possible by attendance at meetings, by assisting in speaking or in taking part in discussion meetings. Most of us are doing a lot of extra work these days and must continue to do so for the duration of the war. But we cannot overlook the fact that membership in our Society entails responsibilities for each one of us. Such membership means nothing at all unless we put something into it and there is room for everyone to do his share. Some of us have already had at least a limited vacation and we probably feel all the better for it. I know full well that all of us have our continuous problems but often these problems can be minimized by attendance at meetings and by a real interest in chapter activities. This Society can be of use to you if you will allow it to be but also you can be of real use to the Society if you will do so. From now on chapters will be busily engaged in formulating programs for the season. Speakers will be hard to obtain and possibly in many instances we will have to revert to a discussion type of meeting. Such meetings can be very helpful indeed to all of us but do not be afraid to take your part and above all but not be a slacker. Attend your chapter meetings regularly. You will get plenty out of them, especially if you put plenty into them.

Literature Received

Planning a Factory Accounting System.

The Federal Accountant, June.

A short, concise but very interesting article of interest to all Industrial Accountants.

Cost Estimating for Government Contracts.

N.A.C.A., July 1.

Deals with cost estimating for Government Contracts in the U.S.

Heat Treating Costs.

N.A.C.A., July 1.

This article is of real interest in that it deals with something on which mighty little has been written previously. The article deals with Heat Treating Costs and describes the Standard Cost Methods used in this connection by a specific company.

Interrelation of Taxes - Costs - Profits.

N.A.C.A., July 15.

A talk delivered by Mr. William J. Casey of the Research Institute of America and is a mighty interesting article.

Internal Control—Principles, Practical Adaptations, Cases.

A most complete and thoroughly interesting as well as informative article on the subject of Internal Auditing.

VARIABLE BUDGETING AND THE CONTROL OF MANUFACTURING EXPENSES

The Accountant's Role in War Production.

The N.Y. C.P.A., July.

A very interesting article and one of a series presented at the Production for Victory Meetings recently held in the United States.

Overheads and Differential Costs.

Canadian Chartered Accountant, Aug.

A complete and comprehensive article of real interest to all Cost Accountants.

New Members

Toronto Chapter.

Kenneth C. Hume, Canadian General Electric Co. Ltd., Toronto.

Donald G. Garratt, Toronto.

Ottawa Chapter.

Roy J. Cameron, Dominion Government Ottawa.

Variable Budgeting and the Control of Manufacturing Expenses

By ALAN W. BELL

Reprinted from The Student (England)

Over the past number of years, there has been a tremendous growth in the interest which has been given to budgets and budget techniques. The growth in the size and complexity of business makes it more and more difficult for the top executives to control the activities of all the departments of their companies. Management has found it necessary to develop some means for controlling and co-ordinating sales, production and financial activities to the end that the company will have enough and only enough of the right goods on hand at the right time, without at the same time increasing its cost disproportionately or prejudicing its financial position. Even so, it was not until the prosperity of the 1920's gave way to the narrowing margin of the 1930's, that a real impetus was given to budgeting. Direct labor and material costs presented their problems to be sure, but the real difficulty was found in attempts to control manufacturing expenses or overhead. The typical picture was a slashing of expenses followed by a gradual "creeping-back" and then a further slashing. Obviously this was not only disturbing to the morale of the workers and supervisors, but it was at best a belated cure. It attempted to apply a remedy after, instead of before the expenditures had been made.

The first step in the development of budgeting came with the fixed or annual budget. A budget of expected sales for the coming year was made up and broken down by products. An inventory policy was decided upon with reference to the finances of the company and then a production budget was made up by months. The latter budget was then broken down into its

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components—material labor and overhead. As a device for controlling expenses, this sort of a budget is wholly inadequate. The actual volume of sales will usually be sufficiently out of line with the budgeted estimates to make comparisons of actual and budget expenses rather meaningless. It is true that variances could be analyzed and broken down but, the trouble here is that by the time the analysis is made, the operating men have forgotten all the details of the transactions. Also, when adjustments are made in a budget after the expenditures have been made, they are bound to be unreliable and biased. Finally, this kind of a budget does not give the operating men a reliable guide as to what their expenses should be at the actual volume of production then prevailing, and it is therefore of little use in helping to plan the day-to-day production.

However, the inadequacy of the fixed budget does not provide an excuse for scrapping it. It is a prerequisite to proper co-ordination and control of the sales, production, and financial activities of the business. By planning future operations in the form of sales, production and financial budgets, we obtain a picture of the company as it will be if the plans are fulfilled, and if this picture does not please us we can change or at least reconsider our position. What we need is not to do away with the fixed budget altogether, but to supplement it with some device which will be of use to the "men down the line." It was to supply this need that the variable budget technique was developed.

The principle behind the variable budget is that for any given volume of business there should be some form of expenditure, and this form should be known beforehand so as to provide a guide to what expenditures should be before they are incurred rather than after. Whereas the fixed budget is a device to assist in planning the general policies of the company for the coming period in terms of a given volume of business, the variable budget has as one of its main objectives the maximizing and control of profits for whatever volume of business is actually obtained. This applies equally to material, labor and overhead cost control, but in this paper the attention of the reader will be confined to the variable budget as applied to the control of overhead expenses.

It will usually be found desirable to place the budget under the control of an assistant to the president, or to someone responsible directly to him. This will avoid possible friction between department heads which would arise if the budget director was a subordinate officer on an equal rank with all the department managers. Furthermore, since there is bound to be interdepartmental disputes brought to light by the use of the budget, and since these will eventually have to go to the president for solution, it is best that they go directly to him or his assistant rather than through some subordinate. A budget committee will usually be formed consisting of the chief functional officers. All departmental estimates will be considered by the committee, and no estimate will be made final without the approval of the committee.

The next step is the working out of the actual budget procedure. In the case of manufacturing expenses this may be conveniently discussed under seven headings: (1) Education and personnel problems; (2) Setting up spending or control areas; (3) Determining a measuring stick of productive capacity; (4) Studying the behavior of costs; (5) Adapting the accounting

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procedures to the budget; (6) Form and presentation of reports; (7) Analysis of variances.

In the first place it must be remembered and emphasized that the co-operation of the chief executives is essential if the budget is to be a success, and anyone who would like to introduce these techniques into a company must remember that the more prosperous or liquid a company is, the more difficult will it be to interest executives in any such schemes. In such cases it becomes all the more necessary to direct attention to this educational problem. In this connection, it is interesting to observe that budgetary procedures are usually introduced by companies because of poor operating results or because of financial strain, when it is unnecessary to convince executives of the importance of cost and operating control.

But even more important for our particular problem is the need to educate the foremen and other operating men. They must be told what the company is trying to accomplish, how this is to be done and just what part they play in the whole plan. It will be desirable to have the production manager himself explaining to his own subordinates, because this will give the budget a prestige that it would lack if it were presented to the operating men by "just another accountant." This educational job is one of the most vital to the success of the budget, and it is in this area that not only most budgets but most accounting systems fail. Foremen must know what is going on and they must have a share in the setting of all budget estimates for which they are to be held responsible.

It is one of the axioms of budgeting that control of spending and responsibility for spending go together. A spending or control area must not be any larger than the area over which an individual has authority to incur expenditures. This requires departmentalization and sub-departmentalization to a much greater degree than is necessary for product costing alone. For example, in a textile mill, the usual functional classification such as picking, carding, spooling, etc., used for product costing is wholly inadequate for control purposes. The emphasis for our purposes must be by authority to spend, and we must always keep this idea before us, for one of the common errors that have been made in past years has been the attempt to use also for control purposes the lines set up for costs accounting. This means that the expenses of service departments will be controlled in the service departments themselves. The allocations necessary for product costing must be avoided when the object is control.

This spect of budgeting procedure involves a number of problems which will not be discussed at all in this short article. The whole difficulty centres in the fact that different kinds of expenses react differently as the volume of production increases or decreases, and it is only by studying these cost characteristics that we can make an intelligent estimate as to what expenses should be and likely will be under a given set of conditions. To do this we must find a least common denominator or "limiting factor" in relation to which expenditures are made or costs incurred. To be suitable for our purposes such a factor must be easy to understand, readily obtainable and common to all departments of the business in the sense that they may be consolidated into figures for the company as a whole.

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The number of units produced will be of use only in rare cases where only one product, or a number of very similar products, are produced. Direct labor hours or direct labor costs will be suitable in some cases, machine hours in others. One large company, which has a varied output uses direct labor dollars because of its simplicity and because it found that this was almost a constant function of its billings. This measure has proven successful because in this particular company the relative proportion of the different products going through any one department remained fairly constant, and because the methods of manufacturing similar products were substantially the same with respect to the relation between the use of labor and the use of machinery. Another company uses labor hours in some departments, machine hours in some departments, man hours in another, and even a combination of these in others. The term "productive hour" was applied to each of these. The principal point to keep in mind, however, is that there should be a casual connection between the measure chosen for a department and the expenditures of that department. And although simplicity is very essential, it should not be overdone to the point of distorting the facts.

The problem of departmentalization arises here also, because aside from the question of the responsibility of department managers for the expenses of their departments, a departmentalization may be necessary in order to get a proper common denominator against which one can measure costs. It is quite possible that in any given spending area there might be a number of sub-departments, each with different cost characteristics. For example, foreman A. might be in full charge of department A. in which both machine-work and hand-work is performed. If the relative proportions of hand and machine-work do not remain fairly constant it would be necessary to make a sub-departmentalization. Of course if the "mix" of products going through the department did not vary much from time to time, no distortion would result by using one common denominator for the whole department.

Practical considerations make it impossible to study costs at every possible level of output. The usual and only sensible method is to estimate expenses at a given number of output levels, and interpolate to get the expenses at intermediate levels. In practice, each major class of expense will be studied carefully and a figure computed for each such expense at, say, ten different levels of production. These studies should be made very carefully for they are to be the basis of far-reaching policies in the future. Results of operations in past years may be used, but they should always be tempered by the judgment of the operating men as to the future. In so far as it is possible, costs at least three or four points within the normal range of operations (i.e. say, between 25 per cent and 80 per cent of capacity) should be studied in great detail. The results of these studies can then be plotted on graphs, along with other data gathered from past operating records. The appropriate measure of output is usually plotted on the horizontal axis and the dollar amount of the expense on the vertical axis. A straight line can then be fitted to the data. A straight line is mentioned because the experience of many companies leads to the conclusion that, at least within the normal range of activity, the amount of most manufacturing expenses tends to vary at a uniform rate with the rise and fall of operations. (As a rule, the larger the department, the more accurate will be the straight-line correlation.) And it is this characteristic of costs which makes it prac-

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ticable to estimate costs at intermediate points by straight line interpolation between two measured points. This makes the budget much simpler than it would be if a curvilinear correlation were used, and most of the disadvantages of such a procedure can be overcome by a broad interpretation of reported variances from budget standards. One further word of explanation is necessary here. Although straight-line correlation will be found to give good results within the normal range of operations, it will be of very doubtful value when business is very slack or when facilities are taxed to the limit. Under such circumstances, judgment becomes a much more important factor in the administration of the budget.

In concluding this section of the paper, the fact should be stressed that foremen, supervisors and superintendents and all operating men who are to use the budget, should play the major part in making the cost studies. If they are not thoroughly conversant with the theory behind the budget, and if they are not made to feel that they are important cogs in this part of the wheel of company management, the success of the budget will be very problematical indeed.

After we have made the above steps, we have to adapt the accounting organization so that in future it will provide all the necessary information at the right time. Care should be taken to see that there is no duplication of work. Much of the information gathered for financial accounting purposes can be used for control purposes also, and vice versa. The introduction of the budget will however, necessitate a much more detailed classification of expenses than will usually be found in the typical company. For instance, we must know not only the figure for indirect labor for the period but we must know also the figure for each control or spending area, and we must know this in terms of its component elements, such as clerical, timekeeping, cleaning, etc. When a foreman receives a report on his weekly expenditures he must know all the elements which go to make up the total. A single figure for indirect labor would be almost meaningless to him and would provide him with only a very meagre control tool.

When deciding upon a proper accounting period, a distinction must be drawn between the fixed or annual budget, and the variable control budget. In the former case, a monthly, seasonal, or yearly budget will usually be prepared, but when the problem is control of detailed departmental expenses, it is essential that the period should be short enough so that the operating men will not have forgotten the conditions in their departments by the time the reports come out, and also the period should be short enough so that corrective action can be taken where necessary before it is too late. It is typical of many companies to use a weekly report for the detailed expenses of the foremen and a monthly report for the control of plant expenditures as a whole.

Undoubtedly, the most important consideration here is simplicity. Each report or chart must be prepared to meet the needs of the person or persons who are going to use it. They must not be cluttered up with details that are of no concern to the expected reader, and expenses over which a given operating man has no control should never appear on his budget report. Reports for executives will be consolidations of plant or department reports,

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which in turn will be consolidations of superintendents' and foremen's reports.

There is also a lot of room for the budget director to exercise his ingenuity in the arrangement and form of the budget material. He should recognize or attempt to discover the preferences and aptitudes of the different individuals who will be using the reports. Some men like charts and graphs; if we remember that a budget can be no better than those who operate and use it, we will realize how important this aspect of the problem is.

It is not the hope of management that all variances of actual from budget can be eliminated. Practical limitations of necessity mean that the budget figures are not truly representative of what costs should be; variances are expected. The problem of budgetary control is to point out these variances and the causes of them, with the idea of keeping them at a minimum, or explaining them in terms of operating conditions not allowed for in the budget, such as an increased proportion of special order work, a decrease in the size of the average order, etc. Minor variances of course will have no significance. Also, variances in certain types of expenses will be of significance only on a cumulative basis. For instance, in a machine shop, grinding wheels and other semi-variable tools will be used up in proportion to the volume of production, but they will be purchased in irregular lots. The budget figures should show the expense incurred through the consumption of the tools, and there are bound to be short run variations between this and the actual figures showing the purchase or requisitioning of the tools. Such variances will be significant only over a period of time, that time being a function of the life of that particular type of tool involved, and the rate of production. Of course, there are certain costs of an extraordinary nature such as the cost of a strike, or damages to plant by fire or otherwise, which do not lend themselves to budgeting. They are nevertheless very real and when action is contemplated on such things as fire protection, employee welfare projects, some attention should obviously be given to them.

In setting up a budget it is also important to determine in advance how you will deal with specific variances which might be expected to occur within a given spending area. The budget must be made flexible, and much of this flexibility must be provided by the administration of the budget. For instance, the budget does not allow for costs which are due to changes in the rate of operation (both as to direction and suddenness of the change), changes in labor turnover, change in the number of styles being produced, etc. Great care is necessary in the interpretation of the budget variances, and the more the management knows about the possible factors which might affect costs, the better will it be able to explain and account for variances.

In concluding this aspect of the budget, one warning is necessary. Unless budget estimates are continually revised, they will lose much of their significance because, as management gains experience in controlling costs, the cost characteristics themselves will almost certainly change.

Having gone into some detail as to the nature of the variable budget and its development, and having outlined briefly the principal guiding considerations in the establishment of such a budget, it remains to point out the uses and advantages that a company might expect to find in such a budget.

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There is a number of important advantages to be derived from the use of budgets by the chief executive officers of a company, such as assisting in the co-ordination of sales, production and financial policies; but it is not intended to follow out this line of thought here because it is the fixed or annual budget which plays the major role in such considerations. The writer wishes to direct attention only to the particular advantage and uses of the variable budget as it applies to manufacturing expenses.

One of the principal advantages that may be gained through the introduction of such a budget system, comes through the investigation of costs and their behavior at different levels of output. An intelligent approach to cost reduction is impossible without actual knowledge of the causes underlying cost variations. An important advantage that results from the examination of the behavior of costs, is the assistance it gives to the management in estimating future profits under different assumed conditions of operations, thus enabling it to arrive at a cost, price, volume relationship which will lead to the maximum net profit to the company over a period of years. Similarly, when appraising such problems as whether a certain large order should be accepted at a price which does not cover average costs, or whether to buy or make a certain part used in the assembly of the final product, or how much additional sales volume must be secured to make a sales promotion program successful, in all these cases a knowledge of the variable cost characteristics of the company is essential if a sound decision is to be reached.

This sort of a budget also trains shop men to think in terms of dollar costs. It teaches them to appreciate values, trains them in the functions of management, and fosters economy. It gives operating men an intelligent estimate of what their detailed expenses should be under the conditions expected during the coming period, and also gives them check-up information at sufficiently short intervals that corrective action can be taken before it is too late. It eliminates delayed reductions in costs in times of falling volume, and prevents unwarranted increases in times of rising volume. It enables executives and operating men to plan action in advance and it thus eliminates losses due to errors which are otherwise inevitable when decisions have to be made under the stress of actual operations.

The Student of Cost Accounting

By E. EMMERSON, A.C.W.A., A.S.A.A.

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I will not attempt to give a definition of the term "a student of cost accounting," other than to say that I feel that we are all students. Some of us have less knowledge and experience than others, but we all realize that there is no limit to the knowledge and experience that we can acquire, that the upper limits of knowledge and experience are attaining greater heights with the passage of each day. In short, we realize that the more we know the more there is to know. Our present day funds of knowledge are therefore but the bases from which we set out to acquire further knowledge. Our job is to give service, and I would suggest that we should not consider ourselves "graduates" until we have rendered some very real service to the

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profession by contributing to the general fund of knowledge, so that there is an ever increasing reserve from which we may all draw to help us in our daily work.

I should like to quote here a few paragraphs from the booklet "The Cost Accountant: his work and training" which is sent out by the Institute to potential Registered Students:—

"Business as we know it to-day is both a Science and an Art. No longer is it a mere occupation assumed without previous training by anyone who seeks a livelihood. Its risks and its prizes are alike so great as to demand the closest application and the most concentrated effort from all who would win success. As a science it focuses on many a weighty problem the co-ordinated knowledge and experience that years of earnest work alone can give; as an art it brings the personal skill and ability of the individual to bear on every situation which presents itself throughout the working day. In the world of affairs the end in view may vary widely with different individuals. Some set the ideal of public service in the forefront of their program; others seek a more material goal and strive to secure the utmost financial advantage. The average business man, however, is usually content to win a moderate profit which does not attract undue competition, giving sound value to his clients on the one hand, and fair and reasonable pay and working conditions to his employees on the other. But whatever his ultimate aim may be, and whatever the field of his activity, the business man cannot hope to keep abreast of the times unless he makes the fullest use of that expert assistance which only the scientific and learned professions can provide. And so vast is the field which these embrace that a high degree of specialization has come to be a necessary condition of efficiency. One of the earliest professions to come to the aid of business was Accountancy. In the past its chief services were confined to the purely financial aspects of an undertaking, but in recent years a specialized branch known as Cost Accountancy has brought its highly developed technique to bear on the problems of productive efficiency, waste elimination and profit making. The main function of Cost Accountancy is to provide and to maintain an internal control upon every form of expenditure relating to an undertaking; and so successful has it become in the attainment of this end that this function has come to be recognized as the natural corollary to the corresponding external supervision exercised by the financial accountant and auditor. In maintaining this internal control upon expenditure, the Cost Accountant performs certain clearly defined functions which are quite distinct from those of the financial accountant and auditor. While the latter is mainly concerned with Assets and Liabilities, and with Income and Expenditure in the mass, and with assigning each to its appropriate place in the Balance Sheet and Financial Accounts, the Cost Accountant is concerned with the internal economy of the business. He examines every item of cost and expense as it arises and obtains satisfactory evidence that it is justified in terms of corresponding output or profit—either immediate or ultimate. Such work can only be accomplished by those who possess, not only a thorough working knowledge of accountancy, but also an intimate acquaintance with actual working conditions in the factory, and with the technical features of the industry, its products and its markets. And here the Cost Accountant requires a strongly developed sense of cost incidence and of technical sequence to guide him in his task—a sense which

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is not required for purely financial accounting, and which is developed only by years of close application to the problems of costing as they are encountered in actual practice in the works. In discharging his functions the Cost Accountant aims at reducing the cost of production and distribution to the lowest possible level consistent with the established standards of quality and the maintenance of the recognized standard of living and comfort for the workers. The effective discharge of the duties of the Cost Accountant calls for special mental and intellectual faculties and for specialized knowledge and intensive experience combined with professional integrity of a high order."

From this quotation I would emphasize several points which appear to me to be vital. These are as follows:—

- (a) The stress laid upon service;
- (b) The stress laid upon knowledge and experience of factory conditions.
- (c) The stress laid upon the maintenance of the firm's quality of product;
- (d) The stress laid upon maintaining a recognized standard of living and comfort for the workers.

Need for Technical Knowledge

Regarding the technical knowledge required of the factory products and production methods, I feel that while we should not be expected to possess the standard of knowledge required of the Works Manager or technical officials, we should nevertheless have such technical knowledge that we can understand fully the bearing upon cost of the different processes or operations through which the materials pass in the factory, and the effects of any alterations in the lay-out of the factory on the cost of the finished product. Under this latter phrase I would include not only factories, but every undertaking with which a Cost Accountant is associated. We must have such knowledge that we are wise before the event and not after it. The effect upon cost of having a certain component made "outside", or the proposed running of vehicles by gas instead of petrol or diesel oil, should be readily ascertainable in advance from the Cost Accountant. Any Works' knowledge that we can obtain is always useful, even if we do not consider that we can put it to immediate use in our present occupations.

In his own sphere the Cost Accountant is a dynamic force, and in my view, wherever there is expenditure which should be allocated, or expressed in some form in relation to any service or product, a skilled Cost Accountant is essential to the undertaking incurring the expenditure.

Essential Qualifications for a Cost Accountant

Obviously, if we are to be "dynamic forces on our own," we must obtain the necessary motive power, or in other words acquire certain knowledge. The conferring on a member of a firm's staff of the title of Cost Accountant does not also confer upon him the necessary capabilities for carrying out the functions of the Cost Accountant. How are we to obtain these capabilities, and what are the essentials?

I would say that the first essential is common sense. This you may say is remarking upon the obvious. Well, obvious things are often taken for granted, and many people do not believe that this valuable asset can be acquired; they adhere to the opinion that it is an inborn gift. I feel that common sense can be acquired by diligent endeavour, and would say that the best way to acquire it is by reading as widely as possible, by reading the

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various viewpoints upon the same topic, and striving to understand the arguments put forward by both sides. If we keep our ears open, and try to digest thoroughly what we hear, before making any comments upon it, and then weigh up all the arguments for and against a proposal, we can then seize upon a point with both hands, and not let go until we have solved the matter to our satisfaction.

One of the partners in my old firm, some years ago, was giving me some advice upon what he considered the best way to assimilate the judgments given in Taxation Cases. He said "Read and re-read the passages in a challenging attitude, and keep on reading them until you fully understand why the evidence in the case resulted in the judgment being given in the form it was." This advice is very sound and is most applicable to the problems of cost accounting. If we can once understand the underlying reasons or motives for the holding of a particular opinion on a certain set of facts, we are well upon the way to being able to analyze a problem in the detached way we should.

In acquiring this mysterious faculty of common sense, a good general education is of immense value. Any subjects that train the mind and help to make it receptive are useful. If we get the chance of learning something about a subject that may seem quite extraneous to us at the time we should use the opportunity, as our knowledge is increased and our outlook broadened thereby. As wide a general knowledge as possible helps us in regarding a problem in its proper perspective, and after all, what is common sense but this? The wider one's general knowledge the better is one able to appreciate the different angles from which a problem can be approached.

As students of cost accounting we have to listen intelligently, and a great deal of knowledge is needed to listen with intelligence to most of the technical viewpoints that can be put forward in any industry.

Practical Approach to Problems.

I would then suggest that we have to strive to approach our work and problems in a practical manner. We may in studying our textbooks, etc., become attracted to some really grandiose and magnificent scheme for the control of this, that or the other, and feel "Yes, that's just what we ought to do at our place." But let us stop and think a moment. Does our firm require such a scheme? Would its introduction be justifiable when viewed from the point of benefits shown? The operation of such a scheme may require certain elaborate forms to be filled in by a storekeeper or a foreman erector, or some other operative. Now the average workman has a well-known antipathy to filling-in forms. "I'm a foreman erector, why do they expect me to be a clerk as well?" This argument is justified. The foreman erector is more use to the concern as a foreman erector than as a clerk and we have to see that his clerical work is kept to the minimum.

Our schemes must be practical. The information required should be asked for in a manner or form that is readily understandable to the worker, and which will not take him long to compile. Some explanation of the uses to which the information is put will go a long way to gaining the confidence and ready co-operation of the worker. All forms should be kept as simple as possible and if drafted upon practical lines will result in the required information being obtained (and plenty more besides if the worker is encouraged to use a "Remarks" or similar column.)

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Book knowledge in itself is of very little value. It forms an excellent basis upon which to work, but it is the intelligent application of the principles upon which the textbooks are based to the special needs of our own factory or organization that is required of us. We have first to master basic principles, and then remember that these principles are always the same—namely, the ascertainment of the cost per unit of something, whether manufactured product, or service.

Method of Applying Principles

The method of applying these principles varies from one organization to another, but I would repeat that whether we are selling battleships, making mouse traps, or providing rides on tram cars, we are concerned with the cost per suitable unit. In his book "Principles of Cost Accounting", Mr. E. Miles Taylor states "The student of Cost Accounting is inclined to assume that there are set forms and rulings, and rigid methods of allocation of expenditure, for all types of manufacture, or at all events for all factories in a particular industry. This is a fatal mistake. Each factory has its specialized objective, its unusual features, and the Cost Accountant must exercise the greatest care that any system is evolved for the particular conditions and to meet the ascertained needs of the business in the form in which it is conducted. That is to say that special regard has to be paid to the Technical Variables of the factory in each and every instance." I am glad to see this in print, as a number of textbooks give numerous examples of forms in use in particular factories, and there is a strong tendency to assume that they can be used throughout a particular industry, unless the warning note is sounded.

Need for Wide and Varied Experience

Bearing in mind the necessity for being practical, and also that cost accounting has been defined as "The intelligent tracking down of expenditure in relation to significant units of products or services" (Taylor), we must then bear in mind that whatever method of cost accounting we employ, the efficiency of the method is limited by the efficiency of the person at the head of the system. No system can be greater than its controller, and therefore it is necessary that this controller is a man of the widest possible experience. It is our duty as students to strive for all the experience we can get, and to continue striving throughout our careers. The controller is also dependent upon the persons under his control for the successful operation of the system. Any system we may instal must therefore take into account the people who are going to operate it. We have all heard the arguments put forward by salesmen of machine accounting equipment, who say "This machine can do so many postings per hour." Can it? The machine requires an operator to work it, and the machine operator must be considered. All unnecessary complications must be removed, all non-essentials ruthlessly scrapped. Just as we endeavour to remove all wasteful movements, and provide as nearly perfect facilities as possible in the factory to obtain maximum production with the minimum of fatigue to the operator, so all steps must be taken to relieve the tedium and fatigue which masses of routine data can force upon the junior members of costing staffs. We must remember that we are dealing with human beings. If we are to succeed as students of cost accounting we must be earnest students of human nature.

There is an old Yorkshire saying: "Hear all, see all, and say nowt."

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This is not a bad motto for us to adopt as students of cost accounting. I would suggest that by this we should understand that we "watch our step" and do not enter into controversy until we have quietly marshalled all our facts together. Then and only then is it time for us to speak, but we must not shout from the housetops, we must speak quietly, sometimes so quietly that our voice is never heard directly, as we have passed the information through some other official into the light of day. We must school ourselves to see the fruits that we have carefully tended grow in profusion upon some other official's tree. But if the fruits are healthy, we must take this as our reward. Provided the required result is obtained we should be satisfied. Patience is a real virtue, particularly in Cost Accountants. Patience with persons, patience with systems and patience with oneself, are essential if we are to be successful as students.

The Human Element

I would like to add a few remarks to those I have already made regarding the study of human nature. We all know from our experience that we cannot always obtain the full confidence and co-operation of all the Works' officials. Sometimes an official (often an old servant who considers himself indispensable) will not fall into line regarding any new suggestions, but confines himself to destructive criticism, such as "We've always done it this way, why shouldn't we continue?" Well, we have to try to understand his viewpoint. He may have an old-standing grouse; but whatever is his reason for being obstructive we have to find it out, and then endeavour to remove it if it is justifiable. (If he is just determined to be obstructive then he will probably have to be removed.) We have to endeavour to make him see that our proposed amendments to the existing order of things can be of assistance to him. In other words, we have to be salesmen of "Cost Accountancy." We have therefore to try to make him an eager buyer of our wares, but naturally he wants to know in what way the wares will benefit him. Before we can sell our ideas to him we have to find out what information will be helpful to him, and then try to present this information in the way the official wants it, without the official telling us what he wants to know, and without any intimation from him as to the method of presentation.

We must be careful not to overdo the information. In addition to providing it, we have to get the recipient interested in it. The official really wants vital facts presented to him in such a manner that he can best utilize the information. We have therefore to try and get firmly fixed in our minds the idea that our function is to give service; we have to try and transfer this idea also into the minds of the Works' officials, and endeavour to make them realize that we are there to help them to run their departments to the maximum efficiency. As students of cost accounting we must bear in mind that cost data serves no useful purpose unless it is put to good use. What is the use of having reams of information, if it just remains in the file of some executive or other? We might as well not prepare it. We have our fingers upon the pulse of the organization with which we are connected; we know how the pulse is beating, but if it is not beating in a healthy manner and we know the reason, we are betraying our function if we do not take all possible steps to see that the cause of the weakness is removed. We are there to give service and give it promptly.

In a paper read to the Conference on Scientific Costing in June, 1919,

THE STUDENT OF COST ACCOUNTING

Mr. Miles Taylor states "The real aim of cost accounting is to record promptly the facts and tendencies of business activities, and so enable the maximum results to be obtained for the least expenditure of material, money, labor and time." You will notice that this statement was made at a time when cost accounting as we know it was in its infancy, but it holds good more than ever now. I submit this quotation for your consideration as a very good definition of the goal towards which we as students should aspire. We cannot fulfil those requirements from any textbook learning alone; we have to apply the theoretical knowledge to our special problems in the works.

Having attained what we may consider to be a satisfactory method of "recording promptly the facts and tendencies of business activities," we must be constantly reviewing our method, with a view to further improvements being incorporated. We cannot stand still, we must either progress or decline. We must always be seeking further knowledge, carrying out research work on the products of our own brain.

Incidentally I feel that to record the tendencies I have referred to, a system of budgetary control is essential. By this I mean the utilization of a scientifically prepared budget (and not a budget which is really the result of guesswork based upon the previous year's accounts when reviewed in total); one that is based upon present factory conditions, and the present level of expenditures. I prefer to have two or more budgets, based upon different levels of output. This field is in my opinion the one which has been the least thoroughly explored by the average student. By a proper system of budgetary control, the effects that any change in the levels of output of the different products of the factory will have upon the net profits of the concern should be thrown into clear relief. For example, the effects of rationing of raw materials in war time must be known in advance, so that a revised production plan can be put into operation. We are the people on whom the responsibility for the provision of this vital information falls; we must therefore be able to provide it. It is necessary that we should study Works organization and layout so that the alterations we propose in the production plan will have been made with a full knowledge of their effect within the Works.

As students of cost accounting we are dealing with persons and things. Persons are much harder to deal with than things. A person has opinions of his own, which do not always accord with our own. We have therefore to be tactful. For example, if we can prove that a certain department is not being run at the maximum level of efficiency why not prove it to the department head, instead of letting him get the information from his superior officer. We should never "go over the head" of an official with information that concerns him unless he will not take notice of the information when it has been placed before him. Why not let our suggestions for improvement within a department be made to the departmental head? Let him bring them to the notice of his superior officer. By doing this we shall earn his gratitude and we shall receive full co-operation from him which is to the benefit of the concern which we are both serving. We can then feel happy in the knowledge that we have done what we can in the best interests of the firm.

Practical Application

Having schooled ourselves to be practical, to use our common sense, and to study the persons with whom we come into contact, we have then to learn

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to apply the basic principles of costing. We must not be dogmatic. If we feel that our views are 100 per cent correct on a certain topic, we must remember that the advocates of the opposing viewpoint may be able to produce evidence which they feel is equally as strong as ours. We must therefore strive to hold a fair balance between the contrary arguments. We must work on evidence, not upon intuition or personal feeling. To take one point upon which there is strong opinion from both camps — "Is interest on capital an item of cost?" I do not propose to discuss this problem, but I mention it just as an example of a question upon which eminent men in the profession can sincerely hold extremely opposite views. We have therefore to learn to be tolerant and to understand each other.

We hear and read a good deal these days of red tape and its restricting influences. We should earnestly strike to keep our scissors sharp to cut red tape as often as we meet it. We should be dealing with live, essential facts, and anything which detracts from the speedy presentation of these facts and the utilization of them must go. Thus we may find a Works Manager insisting on seeing all Works information before it goes to the Cost Department (this may sound "far-fetched," but I knew of such a case.) The officials in the Works, being under the control of the Works Manager, had to do as they were told, with the result that when the Works Manager was away for a few days the information was withheld from the Cost Department until his return. In such a case the red tape had to be cut. After all, the information was all presented to the Works Manager in due course, properly tabulated, and in a form in which it was far more useful to him. Besides, a good deal of the information he intercepted was mere routine which was of no interest to him. All these kind of hindrances must be eliminated; they frequently arise from old customs which have persisted from the days when everything that went on in the Works was the concern of the Works Manager only.

When we hear or read of a particular method of dealing with certain cost information, and that information is dealt with in a different manner in our own firm, we should endeavour to satisfy ourselves that the method we adopt is the most satisfactory one from our point of view. When thinking out this matter we have to bear in mind the disadvantages as well as the advantages. There is a Bridge adage which is very apt in this case—"Look at your losers and look at them hard."

The student of cost accounting must be continually asking himself the questions: "Why?" "Where?" "When," "How?" The answers to these four questions provide all the fundamental cost data required in industry. Cost accountancy in the past (and unfortunately cases still exist) has sometimes been regarded as a sideline for a wealthy firm to spend some of its money upon. As students we must remember that it is our fault if cost accounting ceases to hold its position in the general scheme of things. Upon us rests the responsibility for the future of cost accounting. Our knowledge never can be absolute; we must therefore undertake all the research work we can, we must share our knowledge and experiences with each other so that when we "retire" from our student-ship at a ripe old age we may have rendered some service to the profession and have been thereby worthy students of cost accounting.

You and I and the Budget

(Contributed)

Since the shouting and tumult in respect to the recent Budget proposals has, to some extent, died down, it has been possible to examine this budget with more calmness than was hitherto possible; and while everyone realizes the urgent necessity for prosecuting the war with the utmost vigor with a consequent increase in taxation, one is also forced to the conclusion that there are some things wrong with this budget.

H. A. W. Plaxton, a Toronto lawyer and one who has much experience as a Tax Counsel, recently wrote to Hon. J. L. Ilsley, the Finance Minister, and in this letter he makes the following suggestions. These suggestions, culled from the "Globe and Mail," make interesting reading.

1. That schedules of rates under the Income War Tax Act and the Excess Profits Tax Act should be fixed for the duration of the war to give a definite yardstick for calculation of taxes so that taxpayers can budget accordingly.

Power to Vary Standard

2. That standard profit provisions of the Excess Profits Tax Act should be amended to enable the board of referees to set a standard profit for new industries and depressed industries doing new business based upon any of the following alternative grounds: The difficulty of work and risk involved, capital employed, or volume of production.

3. That the Excess Profits Tax Act should confer power on the board of referees to vary the standard profits according to volume of war business. This is because an absurd result obtains where "standard profit" is fixed in a preparatory period of production. Normal rates and profits earned are many times rate and profit for preparatory period. A variable standard would provide real incentive to manufacturer.

4. That the Excess Profits Tax Act should give power to the board of referees or the Minister to determine when a depressed business is a new business by virtue of doing an entirely new class of business without setting up a new corporate entity and determine standard profits accordingly.

Need All Profits Badly

5. That provisions should be made for release to the taxpayer whenever considered necessary of the 20 per cent withholding excess profits tax. Moreover, the taxpayer should have the right to pledge his interest in this fund for the purpose of his business, consistent with English practice. In almost every case considered, the taxpayer needed all his profits for the purpose of expanding his plant or increasing production.

6. That as taxpayers manufacturing war goods are bound to carry on and build new inventories during periods of hiatus between war orders, the taxpayer should be permitted to set up a reserve of the cost of thirty days' inventory as otherwise the business might either close down or lose heavily on the profit side.

7. That taxpayers be permitted to set up as a current expense contingent reserves to cover the ultimate cost of turning war business over to a peace-time footing. Many businesses are so far expanded to-day that the cost of carrying personnel and plant conversion might easily wipe out entire profits

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and reserves earned during the war period, thus paving the way to bankruptcy.

8. That many incorporated taxpayers, under the present legislation, have had a very substantial increase in their earnings which, in most cases, has been the result of a substantial increase in the company's productive capacity. The standard profit of many of these companies is entirely inadequate, although such companies may be left with a profit after taxation which appears greater than they enjoyed during the standard period, their position is most precarious and in some instances untenable because the liquid assets have all been used for paying taxes and the profit which appears on their balance sheet is tied up in increasing inventory, work in process or new equipment.

Helping the Family Man

9. That, with regard to personal incomes, there will be considerable hardship, with possible inability to meet taxes, in the case of a married man with a large family, whose customary surplus of dollars is being depleted by increased living costs and additional taxes. It is suggested that former exemptions and deductions were not unreasonable and should be restored. Facing a loss of man-power in Canada as we do, raising and educating children should be encouraged as a matter of first national importance.

10. That the deduction for medical expenses incurred should be extended to embrace the whole of next of kin either through wife or husband; that is to say, grandfather, grandmother, father, mother, brother, sister, wife and children of the taxpayer and wives or children of brothers or sisters, and whether such expenses in whole be paid out in the taxable period for any one or more individuals in this whole group.

There can be little quarrel with suggestions Nos. 1, 2, 3 and 4. Suggestion 5 may cause some controversy but there is a good deal of common sense to Mr. Plaxton's argument here. *

No. 6 is a suggestion which will undoubtedly meet with the approval of Accountants generally but trying to get the Income Tax Dept. to see it is something else again.

No. 7 is a new one. At first this suggestion may sound rather radical but actually it isn't. The same goes for suggestion No. 8. Undoubtedly there is a great deal of truth in Mr. Plaxton's argument and in plain English we may have arrived at the point where we may kill the goose that lays the golden egg.

The Personal Income Tax

And now we come to the personal Income Tax which hits all of us. Mr. Plaxton deals with the married man with a large family in suggestion No. 9 and also in No. 10, the latter dealing specifically with the Savings Portion of the tax. While there is some merit in his No. 10, it is not at all probable that this suggestion would be listened to for one minute. If it did it would defeat the whole idea of this Savings Portion of the tax, at least to the end that the government would receive mighty little in this Savings Portion of the tax. It would be different if the only idea was to compel people to save all they could.

Mr. Plaxton's suggestion regarding the family man with a large family is probably well taken but he doesn't go far enough. The allowance of \$80.00 is mighty small for each child and so is the allowance to a married

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man with no family. One hundred and fifty dollars, which is all a married man is allowed for his wife; that is, he is allowed to deduct that amount from his tax, is altogether too small and puts a premium on what someone has called single blessedness.

The Normal Tax

The Normal Tax, which takes the place of the National Defence Tax is still not allowed as a deduction from Income Tax and so once again we are compelled to pay Income Tax on income which we never receive. It is all very well to say that if we did receive such an allowance the Income Tax would have to be advanced. That may be true but it is not enough. This matter of paying tax on tax is pernicious to say the least but this fact alone is not the only one which condemns it.

Payroll Deductions

Payroll deductions have become a real headache to Accountants and Payroll people and there was a fear that with the new budget two additional deductions from payrolls would have to be made. Now that the government booklets have been issued it is seen that only one deduction will be made and this will take the place of the old National Defence Tax. This is all to the good and the government is to be congratulated on its common sense in this regard.

Eliminating Expense

One thing not contained in the budget of course but which does hit every taxpayer in the country is the fact that we are being told that we must pay heavy taxes, that an all out war effort is needed, that we have asked for it and that we are going to get it. Fine, that is all right with us and we believe with every sane thinking man or woman. But, let's take a look at some of the things we have to pay for and see if they are really necessary. First of all, the writer recently received through the mails a government pamphlet on Rent Control and we presume most householders in the country did also. Now we have absolutely no direct interest in rent control and so the pamphlet went where it belonged, in the waste basket and we do mean "waste." We wonder how many such pamphlets were wasted and what the cost, which we all have to pay, actually was. Then take the matter of Oil Control. In order to secure a preferred gasoline category one had almost to swear one's life away. True, some people probably received preferred categories who were not strictly entitled to them but if they did it was due to inefficiency on the part of the Oil Controller's department. Once the ration books were issued the main work of this department, that is of the rank and file of the employees had ceased, at least until new ration books were to be issued at the start of another year. But, did the department release any of its employees for war service? Oh no. They conceived the idea that there was a gasoline shortage and that people with preferred categories must be reduced to the status of a pure pleasure driver. Instead of reducing the unit, which would not have entailed any work at all or the necessity for a huge staff, the department began to call in preferred category ration books and to issue in their stead A-1 books. This meant huge sums for stationery for typing and the rest of it, huge sums for new ration books and the upkeep of the department and practically no reduction in gasoline consumption. Why? Well, because the standard argument

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used when one protested against a reduction in category was, "We'll give you a new A-1 book so that you will have more coupons in the new book than you have left in the old." Where was the sense of all the work involved and the expense involved? Would it not have been better to leave the categories as they were until the start of the new year? Of course it would, but, this would have meant a huge reduction in expense which apparently is not what is desired. Then there is the matter of calling up trainees for the Army. We wonder how many men have been called up who are already in the Armed forces, and in some cases have been killed overseas? Quite a number, we'll wager. Here is another expense quite unnecessary and it could be obviated if there was any co-ordination between various government departments, which there evidently isn't. We wonder also how much money is wasted in the government departments of the Armed forces. From our experience we wager quite a lot. Are we making the best use of our available man power, we mean man power already engaged in the War effort? We think not. We have set up boards to control this and that and we do not doubt the necessity for these controls but are we effecting such controls with the least possible expense? Just take a look around you and you will find the answer and it isn't a very pleasant one at that. Just try to remember how many government pamphlets you have received on this subject or that, think of the expense in compiling these pamphlets, the expense of printing and distributing them, the cost of the paper, and ask yourself are they necessary. The answer there will not be very pleasant. In this connection we notice that the government has appointed a man to investigate the use of government printing etc., a former government employee who has been brought out of retirement instead of a man from industry who is used to curtailing expenses because his company has to show a profit. There isn't an office in the country that isn't deluged with requests for information from the government. Information which may be necessary in many cases for the purposes of control and for statistical purposes but we venture to say that in many cases this information isn't used to the fullest advantage. Yet it takes stationery and time and effort which might be used to better advantage in the war effort to compile this information. Oh yes, you and I are paying for it, don't forget that. And then take—oh well, what's the use—you know these things as well as we do. You and I know that we have not been milked dry yet and that we haven't any objection to being milked dry, that we are prepared to pay everything we can and to be subject to all the controls necessary so long as the money is spent to the best advantage and with a minimum of waste and we do not consider that the money is being spent to the best advantage or with a minimum of waste. We think that huge economies could be effected which would assist the war effort rather than hinder it. We think that a lot of money is being spent needlessly and to no real end except waste. You and I are being asked to conserve rubber, gasoline, paper, fats, clothing and what have you but to what end? If we have to conserve then let the various government boards and departments do likewise. This is not intended as a criticism of the government itself but rather of these various departments and boards who, in many cases seem to have gone completely haywire in the matter of expense. The blame we attach to the government is that instead of sitting up nights figuring out

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At the recent Annual Meeting of the Society it was decided to publish a permanent Honour Roll in "Cost and Management" of members who have enlisted for Active Service during the present war. Chapter Secretaries and members who know of any such enlistments are urged to notify the Secretary-Manager at 600 MacKay Building, 66 King Street East, Hamilton, Ontario, giving full details in order that such a list may be compiled at the earliest possible moment; also members who have already enlisted or who later enlist should notify their Chapter Secretary or the Secretary-Manager of the Society immediately, giving rank and unit.

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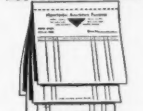
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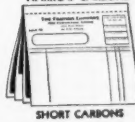
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ways and means of further taxation, they should do something about investigating the huge expense and doing something to eliminate a lot of waste which everyone agrees is going on but which few people are willing to say anything or do anything about. We know that war itself is a huge waste, that can't be helped, but surely something can be done to prevent the spending of huge sums of money, totally unnecessary in many ways and which you and I contribute.

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He was not content to drift along, however. He wanted to advance, and to do so by merit. Despite all efforts for self-improvement, no door of advancement opened to Joe in accounting or administration. The future seemed dark, but he never gave up hope.

One day, a casual incident introduced him to the Canadian Society of Cost Accountants and Industrial Engineers. He attended a meeting as a guest of a member, and thereafter became an active member of the Society. This marked one of the few milestones in his young and hitherto uneventful career. The lectures and talks sponsored by the Society and the discussions and associations with others in the accounting profession put Joe in the position where he was able to seize the opportunity that presented itself with another employer.

No, he is not the vice-president, nor is he the secretary-treasurer. But he is an accountant with full responsibility and he is in line for further advancement—and not in a war industry either. Joe attributes his success in getting out of the "rut" and really going along the road of advancement, largely to his membership in the Society and all that it embodies.

If you have ambition to advance in the accounting profession, The Canadian Society of Cost Accountants can be of the utmost value to you, as it was to Joe. This Society has a Dominion Charter and its affiliates have Provincial Charters, which are recognized in the field of industrial and cost accounting. The field of public accounting and auditing is ably filled by the Chartered Accountants. The internal industrial and cost accountants have their counterpart in the Canadian Society of Cost Accountants and its affiliates.

Your membership can benefit you immensely, not only in your job, but will indirectly aid you by your supporting your professional organization.

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The Secretary,

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Hamilton, Ont.

Overhead Expenses in Relation to Production Volume

K. BERNARD WISE

Reprinted from *The Chartered Accountant in Australia*

The cost accountant has many functions to fulfil in the average manufacturing organization, but certainly not the least important of his tasks will be to control the departmental or sectional allocation of all overhead charges or assessments in order that each individual factory portion is debited with an equitable proportion of the total factory running costs. Such sub-divisions of overhead charges should be carried out on the basis of a defined routine with allocations in ratio to the various areas, consumption, etc. Thus, for example, the charges of rent are invariably debited on the basis of floor space occupied. This is quite fair, for the larger the department the greater will be its burden of rent.

The regular allocation of such charges will permit the determination of an annual or, perhaps, weekly amount, which represents the departmental overheads for that particular period. The analysis will equally demonstrate the minimum production volume to pass through each department to liquidate those expenses. The ultimate objective to be achieved is the rationalization of production in such a manner as to provide an even departmental output flow. Such development assures the maintenance of a reasonable overhead cost for each manufactured unit and will assist in the development of an improved efficiency ratio and a depreciation in manufacturing waste which are the natural consequence of an even flow.

Careful analysis of the overhead charges of a production department will show that the majority are of the constant variety (about 65 per cent), whilst the balance will fluctuate in approximately direct proportion to production volume.

Those items which may be classified as constant are: "Rent, rates, depreciation (in part), lighting, heating, control, salaries, welfare and canteen, and insurance.

Naturally enough several of the above expenditure groups will be substantially greater in war-time when larger staffs are employed for longer operative hours but, nevertheless, at base they are not susceptible to variation with production as are electricity and gas charges, coal consumption, etc. In this last trio of expenditure groups there are likely to be, particularly in the case of electricity, certain minima which have to be paid regardless of the actual consumption.

From the economic standpoint, the most desirable productive status is to achieve maximum output for twenty-four hours a day. Such a state is, of course, impracticable, except under the pressure of war-time production—continuance of such an achievement must be the forerunner of breakdown—but if it were possible to maintain output at such a state, it follows that the overhead charge for each unit produced must be the lowest possible. As it follows that the lowest overheads will follow automatically on the greatest production, it is incumbent on all factory managers to advance output to the

OVERHEAD EXPENSES IN RELATION TO PRODUCTION VOLUME

highest practicable level, a step which will develop and increase the economic frame of any manufacturing organization.

There are many factors which will each play their cumulative part in the avoidance of attaining peak figures and, as these must be met and dealt with as and when they arise, it may be as well to consider which are the principal factors.

- (a) Wastage in course of manufacture.
- (b) Wastage through the incidence of defective materials.
- (c) Loss through breakdown of machinery.
- (d) Inefficiency on the part of the personnel employed.
- (e) Inefficiency on the part of supervisors.
- (f) Fatigue and boredom.

Consideration of these six vital factors will demonstrate ways and means to combat them, it being logical to conclude that the prime derivation of five, if not of the whole six, can be traced back to insufficient education of employees as to their responsibilities both to themselves and to their principals.

Articles in this journal have regularly advocated the use and application of statistical analysis for all manufacturing processes and comparison between the unit charge for overheads in proportion to a fluctuating output is no exception to the recommendation.

The case exemplified will terminate satisfactorily by reason that the additional turnover is absorbed by the Government, but if this were not so there would be no benefit in bolstering production if the additional goods remain without a market. Those whose budgets provide for maximum production usually estimate their sales under two distinct heads:

1. Their normal sales.
2. Excess production to be sold at (a) special prices in export markets, and (b) as goods carrying a different name and trademark to be sold at reduced prices in different markets from those which will absorb the normal sales.

Inability to produce to 100 per cent capacity must involve an economic loss. A factory operating to the extent of 75 per cent of its possible attainment carries a definite loss of 25 per cent in its overhead charges, a loss which becomes a burden on normal production cost and a first drain on net profits.

Quite distinct from the usual overhead charges there is also to be considered the cost of wages and labor expenditure which will be adversely affected by reduced production. Supervision costs are normally incorporated in the departmental overheads, but the extra burdens of assistant foremen, etc., are usually included in the wages total. The cost of non-productive labor will undergo very slight amendment, even from a substantial increase in production. These and similar charges are of the constant variety and, in consequence, any increase in output turnover will be reflected in a corresponding drop in the labor cost per unit produced.

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From time to time we receive requests from our Western Chapters to have Eastern members who may be visiting the West, call on our Chapters there. Any member who can address the Chapters and is willing to do so will be doubly welcomed, but members who merely wish to pay a courtesy call will receive a royal welcome. Remember the fellows out West are far away from Headquarters, and a visit on your part when in the vicinity will do a lot to help them.

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